



UNITED STATES PATENT AND TRADEMARK OFFICE

A

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/052,256 | 01/23/2002 | Tomoru Teruuchi | 13740-004001 | 1933 |
| 2292 | 7590 | 08/29/2005 | EXAMINER | |
| BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | NGUYEN, CHAU T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2176 | |

DATE MAILED: 08/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,256

Applicant(s)

TERUUCHI ET AL.

Examiner

Chau Nguyen

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Amendment, received on 06/14/2005, has been entered. Claims 1-20 are pending.

Response to Arguments

2. Applicant's arguments with respect to foreign priority have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, European Patent Application No. 0586022 A1 and further in view of Serret-Avila et al. (Serret-Avila), US Patent No. 6,785,815.

Art Unit: 2176

5. As to claims 1, 5 and 10, Fischer discloses an electronic signature method comprising the steps of:

analyzing a target document to generate a representation having a structure (page 20, lines 20-36: document package contains the cover letter 300, enclosed letter 302, spread sheet 304, graphics file 306);

generating an electronic signature from each structural element of the structure of the generated representation (page 20, lines 20-36: signature items A, C, E, and G represent the hash of the cover letter 300, enclosed letter 302, spread sheet 304, and graphics file 306, respectively); and

However, Fischer does not explicitly disclose concatenating the generated electronic signatures into a single signature corresponding to the structure of the generated representation. Serret-Avila discloses a data signal 300 (a stream of textual information) is partitioned into a sequence of data blocks or segments 304, each segment 304 having its own signature 306 (Serret-Avila, col. 11, lines 23-45 and Fig. 3). In addition, Serret-Avila discloses each data block or segment is hashed (assigned a unique key), and all the unique keys from each data block are concatenated, resulting the signature 810 (col. 18, lines 12-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Serret-Avila and Fischer to include concatenating the generated electronic signatures into a single signature corresponding to the structure of the generated representation. Serret-Avila suggests that the hash values (all unique keys) in hash concatenation are used to

Art Unit: 2176

verify the authenticity of the corresponding blocks in the data signal, and also to control access to and use of digital/electronic data.

6. As to claims 2 and 6, Fischer and Serret-Avila disclose the step of setting a level of attachment of electronic signatures to structural elements of the document, whereby precision of reliability judgment of a document with an electronic signature can be varied depending on the level (Fischer, page 20, lines 20-36).

7. As to claims 3, 9, 11, 19 and 20, Fischer and Serret-Avila disclose wherein a rate of coincidence between the target document and the target document with an electronic signature is found from a rate of structural elements having authenticated electronic signatures to the whole structure (Fischer, page 20, lines 20-36).

8. As to claims 4, 7 and 12-15, Fischer and Serret-Avila disclose wherein said concatenating step includes inputting the generated electronic signatures in a row (Serret-Avila discloses a data signal 300 (a stream of textual information) is partitioned into a sequence of data blocks or segments 304, each segment 304 having its own signature 306 (Serret-Avila, col. 11, lines 23-45 and Fig. 3). In addition, Serret-Avila discloses each data block or segment is hashed (assigned a unique key), and all the unique keys from each data block are concatenated as shown in a row of $H(B1)$, $H(B2)$, $H(B3)$,... $H(Bn)$, resulting the signature 810 (col. 18, lines 12-34). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine

the teachings of Serret-Avila and Fischer to include concatenating the generated electronic signatures in a row into a single signature corresponding to the structure of the generated representation. Serret-Avila suggests that the hash values (all unique keys) in hash concatenation are used to verify the authenticity of the corresponding blocks in the data signal, and also to control access to and use of digital/electronic data).

9. As to claims 8 and 16-18, Fischer and Serret-Avila disclose means for analyzing the structure of the target document to verify the target document having the generated electronic signature (Fischer, page 20, lines 20-36); and

means for analyzing each of the electronic signatures of the structural elements of the target document (Fischer, page 20, lines 20-36).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The Examiner can normally be reached on Monday-Friday from 8:30 am to 5:30 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. On July 15, 2005, the Central Facsimile (FAX) Number will change from 703-872-9306 to 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176

William L Bashore
WILLIAM BASHORE
PRIMARY EXAMINER
8/23/2005